

BATUNER, L.M.

Calculating the multiplicity of mass exchange in rectification
columns. Trudy Len. khim.-farm. inst. no.4:19-28 '58.
(MIRA 12:12)

(Mass transfer) (Distillation apparatus)

BATUNER, L.M.; PROTASOV, A.M.

~~Chemical adsorption. Trudy Len. khim.-farm. inst. no. 4:34-43
'58.~~

(Adsorption)

BATUNER, L.M.

Deriving an equation for the absorption coefficient. Trudy Len.
khim, farm. inst. no.4:49-51 '58. (MIRA 12:12)
(Absorption)

RATUNER, L.M.; GORBACHEVA, N.A.

Model analysis of ion exchange filters. Trudy Len. khim.-farm.
inst. no.4:52-60 '58. (MIRA 12:12)
(Ion exchange) (Filters and filtration)

BATUNER, L.M.; PROTASOV, A.M.

Hydrodynamics of ion exchange filters. Trudy Len. khim.-farm.
inst. no.4:61-65 '58. (MIRA 12:12)
(Filters and filtration) (Ion exchange) (Hydrodynamics)

BATUNER, L.M.

Hydrodynamics of wetted-wall apparatus for diazotization. Trudy
Len. khim.-farm. inst. no.4:66-68 '58. (MIRA 12:12)
(Chemical apparatus) (Hydrodynamics)

BATUMER, Lev Mendelevich, dottsent, kand.tekhn.nauk; POZIN, Maks Yefimovich,
prof., doktor tekhn.nauk; PROTASOV, A.M., dottsent, kand.fiz.-mat.
nauk, red.; FOMKINA, T.A., tekhn.red.

[Mathematical methods applied to chemical technology] Matemati-
cheskie metody v khimicheskoi tekhnike. Izd.3., perer. i dop.
Pod obshchei red. M.N.Pozina. Leningrad, Gos.nauchno-tekhn.izd-vo
khim.lit-ry, 1960. 639 p. (MIRA 14:2)
(Chemistry, Technical)

PHASE I BOOK EXPLOITATION

SOV/5160

Batuner, Lev Mendelevich, and Maks Yefimovich Pozin

Matematicheskiye metody v khimicheskoy tekhnike (Mathematical Methods in Chemical Engineering) 3rd ed., rev. and enl. Lenin-grad, Goskhimizdat, 1960. 640 p. 10,000 copies printed.

Ed. (Title page): Maks Yefimovich Pozin, Professor; Ed.: A. M. Protasov; Tech. Ed.: T. A. Fomkina.

PURPOSE: This book is intended for chemical engineers, researchers, and manufacturers. It may also be used as a manual by students at chemical and engineering schools of higher education.

COVERAGE: The book presents methods for solving various problems in chemistry and chemical engineering with the aid of methods of higher mathematics. It gives numerous typical examples taken from laboratory and manufacturing practice. This edition differs from earlier editions in several ways. Chapters III and IV consider new phenomena; section 9 is newly added to Ch. VII; Chapters VI and XIII are new; Ch. XIV contains two new sections, 6 and 13;

Card 1/24

39041
S/124/62/000/007/004/027
D234/D308

11.8100
AUTHORS: Batuner, L. M. and Protasov, A. M.

TITLE: Determination of the temperature of periodic explosive reactions

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 7, 1962, 11, abstract 7B58 (Tr. Leningr. khim.-farmatsevt. in-ta, 1960, no. 11, 189-198)

TEXT: The authors consider the problem of measurement of temperature of a medium at the instant of explosion and during subsequent expansion of the gas mixture. For the purpose of such measurement, a resistance thermometer, connected to an automatic recording device, was placed in the reaction chamber containing a piston. The dependence of the measured temperature on time was determined on the basis of a thermal balance equation. The authors obtain a differential equation of first order, in which the right-hand side is given by the graphical dependence of temperature on time. This

Card 1/2

Determination of the ...

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S/124/62/000/007/004/027
D234/D308

equation is solved for given initial conditions. As a result of the analysis it is established that the maximum reading of the resistance thermometer is delayed by 0.3 of a cycle and amounts to 70% of the true maximum value of the temperature in the chamber. 4 references. [- Abstracter's note: Complete translation.]

Card 2/2

BATUNER, L.M.; LYASHENKO, V.D.; VOVSI, B.A.; VITENBERG, A.G.

Thermokinetics of the catalytic decomposition of o-methoxyphenyl
diazonium sulfate. Trudy Len. khim-farm. inst. no.14:113-122
'62 (MIRA 17:12)

BATUNER, L.M.

Hydraulic resistance in packed columns and suspension filtration. Trudy Len. khim.-farm. inst. no. 14:123-141 '62.
(MIRA 17:2)

Kinetics of ion exchange in the processes of water treatment.
Ibid. #142-148

Experimental calculations and investigations of the continuous process of streptomycin ion exchange applicable to the traveling-belt apparatus. Ibid. #149-168

Thermodynamics of the rectification of binary solutions.
Ibid. #169-184

BATUNER, L.M.; KUL'BAKH, V.O., red.

[Kinetics of chemical processes taking place in flow reactors; a manual for correspondence students] Kinetika khimicheskikh protsessov v protokhnykh apparatakh; uchebnoe posobie dlia studentov-zaochnikov. Leningrad, Leningr. khimiko-farmatsevticheskii in-t, 1963. 94 p.
(MIRA 18:1)

BATUNER, P.D.

ANDON'YEV, V.L.; BAUM, V.A.; BAUMGARTEN, N.K.; BEREZIN, V.D.; BIRYUKOV, I.K.;
BIRYUKOV, S.M.; BLOKHIN, S.I.; BOROVAY, G.A.; BULAV, M.Z.; BURAKOV,
N.A.; VERTSAYMER, B.A.; VOVK, G.M.; VORMAN, B.A.; VOSCHCHININ, A.P.;
GALAKTIONOV, V.D., kand. tekhn. nauk; GEMKIN, Ye.M.; GIL'DIMBLAT,
Ya.D., kand. tekhn. nauk; GINZBURG, M.M.; GLIMBOV, P.S.; GODINS, E.G.;
GORBACHEV, V.N.; GRZHIB, B.V.; GRENKULOV, L.F., kand. s.-kh. nauk;
YU.D.; GRODZINSKAYA, I.Ya.; DANILOV, A.G.; DMITRIYEV, I.G.; DMITRIYENKO,
A.P.; ZENKEVICH, D.K.; DUBININ, L.G.; DUNDUKOV, M.D.; ZHOLIK,
KARANOV, I.J.; KNYAZEV, S.N.; KOLMOGORYEV, N.M.; KOMAREVSKIY, V.T.;
KOSSENKO, V.P.; KORENSTOVOV, D.V.; KOSTROV, I.N.; KOTLYARSKIY, D.M.;
KRIVSKIY, M.N.; KUZNITSOV, A.Ya.; LAGAR'KOV, N.I.; LGALOV, V.G.;
LIKHACHEV, V.P.; LOGUNOV, P.I.; MATSKOVICH, K.F.; MEL'NICHENKO,
K.I.; MINDENLICH, I.R.; MIKHAYLOV, A.V., kand. tekhn. nauk;
MUSIYeva, R.N.; NATANSON, A.V.; NIKITIN, M.V.; OVTS, I.S.;
OGUL'NIK, G.R.; OSIPOV, A.D.; OSMER, N.A.; PITEROV, V.I.; PASHYSHKIN,
G.A., prof.; P'YANKOVA, Ye.V.; RAPOPORT, Ya.D.; RUMZOV, N.P.;
ROZANOV, M.P., kand. biol. nauk; ROCHENOV, A.G.; RUBINCHIK, A.M.;
RYBACHEVSKIY, V.S.; SADCHIKOV, A.V.; SEMENTSOV, V.A.; SIDENKO, P.M.;
SINYAVSKAYA, V.T.; SITAROVA, M.M.; SOSHOVIKOV, K.S.; STAVITSKIY,
Ye.A.; STOLYAROV, B.P. [deceased]; SUDZILOVSKIY, A.O.; SYRTSOVA,
Ye.D., kand. tekhn. nauk; FILIPPSKIY, V.P.; KHALTURIN, A.D.;
TSISHOVSKIY, P.M.; CHERKASOV, M.I.; CHERNYSHEV, A.A.; CHUSOVITIN,
N.A.; SHUSTOPAL, A.O.; SHKHTER, P.A.; SHISHKO, G.A.; SHCHERBINA,
I.N.; ENGEL', F.F.; YAKOBSON, A.G.; YAKUBOV, P.A., ARKHANGEL'SKIY,

(Continued on next card)

ANDON'YEV, V.L.... (continued) Card 2.
Ye.A., retsentent, red.; AKHUTIN, A.N., retsentent, red.; BALASHOV,
Yu.S., retsentent, red.; BARABANOV, V.A., retsentent, red.; BATUNER,
P.D., retsentent, red.; BORODIN, P.V., kand. tekhn. nauk, retsentent,
red.; VALUTSKIY, I.I., kand. tekhn. nauk, retsentent, red.;
GRIGOR'YEV, V.M., kand. tekhn. nauk, retsentent, red.;
retsentent, red.; GUDAYEV, I.N., retsentent, red.; YERMOLOV, A.I.,
kand. tekhn. nauk, retsentent, red.; KARAULOV, B.F., retsentent,
red.; KRITSKIY, S.N., doktor tekhn. nauk, retsentent, red.; LIKIN,
V.V., retsentent, red.; LUKIN, V.V., retsentent, red.; LUSKIN, Z.D.,
retsentent, red.; MATRIROSOV, A.Kh., retsentent, red.; MENDELYEV,
D.M., retsentent, red.; MINKEL', M.J., doktor tekhn. nauk, retsentent,
red.; OBRIZKOV, S.S., retsentent, red.; PETRASHEN', P.N., retsentent,
red.; POLYAKOV, L.M., retsentent, red.; RUMYANTS'EV, A.M., retsentent,
red.; RYABCHIKOV, Ye.I., retsentent, red.; STASHNIKOV, N.G., retsen-
tent, red.; TAKANAYEV, P.F., retsentent, red.; TARANOVSKIY, S.V.,
prof., doktor tekhn. nauk, retsentent, red.; TIZDEL', R.R., retsen-
tent, red.; FEDOROV, Ye.M., retsentent, red.; SHENYAKOV, M.N.,
retsentent, red.; SHIMAKOV, M.I., retsentent, red.; ZHUK, S.Ya.
[deceased], akademik, glavnnyy red.; HUSSO, G.A., kand. tekhn. nauk,
red.; FILIMONOV, N.A., red.; VOLKOV, L.N., red.; GRISHIN, M.M., red.;
ZHURIN, V.D., prof., doktor tekhn. nauk, red.; KOSTROV, I.N., red.;
LIKACHEV, V.P., red.; MEDVEDEV, V.M., kand. tekhn. nauk, red.;
MIKHAYLOV, A.V., kand. tekhn. nauk, red.; PETROV, G.D., red.; RAZIN,
N.V., red.; SOBOLEV, V.P., red.; FERRINGER, B.P., red.; FREYGOFFER,
(Continued on next card)

ANDON'YEV, V.L.... (continued) Card 3.

Ye.P., red.; TSIPLAKOV, V.D. [deceased], red.; KORABLINOV, P.N.,
tekhn. red.; GENKIN, Ye.M., tekhn. red.; KACHIROVSKIY, N.V., tekhn.
red.

[Volga-Don; technical account of the construction of the V.I. Lenin
Volga-Don Navigation Canal, the Tsimlyansk Hydroelectric Center,
and irrigation systems] Volgo-Don; tekhnicheskii otchet o stroitel'-
stve Volgo-Donskogo sudokhodnogo kanala imeni V.I. Lenina, TSIM-
LYANSKOGO gidrouzla i orenitel'nykh sooruzhenii, 1949-1952; v piati
tomakh. Moskva, Gos. energ. izd-vo. Vol.1. [General structural
descriptions] Obshchee opisanie sooruzhenii. Glav. red. S.IA. Zhuk.
Red. toma M.M. Grishin. 1957. 319 p. Vol.2. [Organization of con-
struction. Specialized operations in hydraulic engineering] Orga-
nizatsiia stroitel'stva. Spetsial'nye gidrotekhnicheskie raboty.

(Continued on next card)

ANDON'YEV, V.L.... (continued) Card 4.

Glav. red. S.IA. Zhuk. Red. toma I.N. Kostrov. 1958. 319 p.

(MIRA 11:9)

1. Russia (1923- U.S.S.R.) Ministerstvo elektrostantsii. Byuro tekhnicheskogo otcheta o stroitel'stve Volgo-Dona. 2. Chlen-korrespondent Akademii nauk SSSR (for Akhutin). 3. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Grishin, Razin).

(Volga Don Canal--Hydraulic engineering)

8/128/63/000/001/007/008
A004/A127

AUTHORS: Leont'yeva, A.V., Batuner, Yu.Ye., Likhachev, R.B.

TITLE: Improving the quality of the Al 8 (AL8) alloy

PERIODICAL: Liteynoye proizvodstvo, no. 1, 1963, 37

TEXT: To reduce the amount of oxides in the AL8 alloy it is refined for 5 - 8 minutes at 700 - 720°C under intense stirring in vertical direction, while the surface of the melt is continuously covered with a carnallite flux. The slag is removed from the surface, new flux is added and the metal is poured at 700 - 720°C, which increases the mechanical properties of the alloy as follows: $\sigma_b = 30.8 + 32.5 \text{ kg/mm}^2$, and $\delta = 9 + 11.6\%$ after heat treatment. If AL8 alloy with beryllium and titanium additions is produced, it is recommended to refine the alloy by mixing the flux layer over a depth of 100 - 150 mm. Corrosion tests of specimens produced by this technology showed that AL8 alloy parts containing titanium and improved by refining showed the highest corrosion resistance. ✓

Card 1/1

LEONT'YEVA, A.V.; BATUNER, Yu.Ye.; LIKHACHEV, R.B.

Improving the quality of the AL8 alloy. Lit. proizv.
no.1:37 Ja '63. (MIRA 16:3)
(Aluminum-magnesium alloys—Metallurgy)

BATUNIN, M.N., prof., zasluzhennyj deyatel' nauki; IL'IN, B.I.,
kand.med.nauk

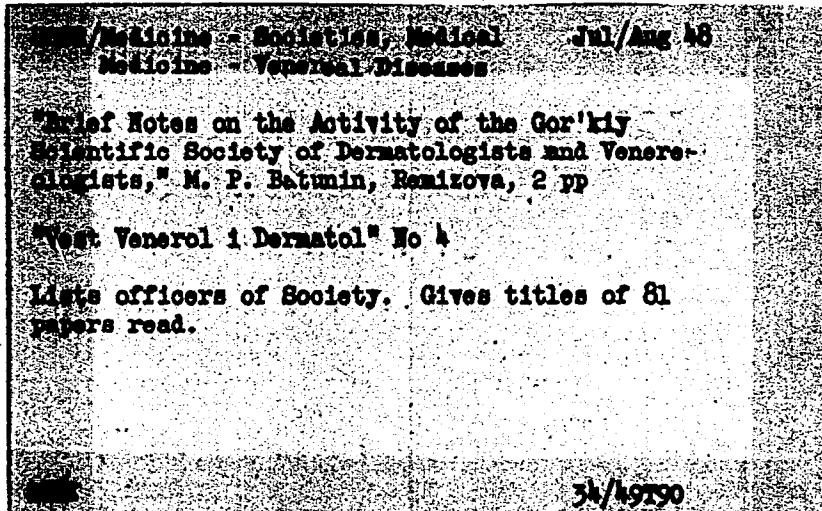
Results of the readers' conference organized by the Gorkiy Dermatovenereological Society on April 13, 1961 for discussing the materials published in the journal, "Vestnik dermatologii i venerologii" in 1960. Vest.derm.i ven. no.12:77-81 '61.

1. Predsedatel' Gor'kovskogo dermato-venerologicheskogo obshchestva (for Batunin). 2. Sekretar' Gor'kovskogo dermato-venerologicheskogo obshchestva (for Il'in).

(DERMATOLOGY--PERIODICALS) (VENERELOGY--PERIODICALS)

BATUNIN, E. P.

PA 34/49T90



BATUNIN, M. P.

Batunin, M. P.--"The separate stages of the work of the Kafedra skin-venereal diseases GGMI imeni S. M. Kirov on its 25th anniversary and of the Gor'kovekiv regional scientific-reasearch of skinvenereal diseases institute on its 15th anniversary," Nauch. zapiski Gor'k. in-ta dermatologii i venerologii i Kafedry kozhno-verenich. bolezney GGMI im. Kirova, Issue 12, 1948, p. 5-17

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No. 3, 1949)

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000203930007-7

Batunin, M. P.

Batunin, M. P.--"Carbohydrate change during eczema," Nauch. zapiski Gor'k. in-ta dermatologii i venerologii i Kafedry kozhno-verenich. bolezney OGMI im. Kirova, Issue 12, 1948, p. 60-64.

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No. 3, 1949)

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000203930007-7"

BATUNIN, M. P.

Batunin, M. P.—"Percentage of chloride in the blood, urine and skin during eczema."
Nauch, zapiski Gor'k. in-ta dermatologii i venerologii i Kafedry kozhno-verenich.
bolezney GGMI im. Kirova, Issue 12, 1948, p. 65-75

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No. 3, 1949)

BATUNIN, M. P.

Batunin, M. P.--"Reactivity of skin to a chemical substance during eczema." Nauch. zaciski Gor'k. in-ta dermatologii i venerologii i Kafedry kozhnoverenich. bolizney. GGMI im. Kirova, Issue 12, 1948, p. 76-85

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No. 3, 1949)

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000203930007-7

BATUNIN, M. P. Prof.

"Experience in the Use of Solvent E.S. in Dermatology," a report given at the annual scientific session of the AU Sci. Soc. of Dermato-Venerolog. in 1952

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000203930007-7"

BATININ, M.P.; GLAVINSKAYA, T.A.; MATUSIS, I.I.

Further activities in reorganization of dermato-venereological medical institutions according to the Pavlovian theory, Vest. vener.,
Moskva no. 6:7-12 Nov-Dec 1952. (CLML 2461)

BATUNIN, M.P., professor; MATUSIS, I.I., professor. (Reviewers)

Review of "Problems of dermatology and venereology" published by the Central Institute for Skin and Venereal Diseases, vol.X, Medgiz, 1953. Reviewed by M.P.Batunin, I.I.Matusis. Vest.ven.i derm. no.1:51-55 Ja-F '54. (MIRRA 7:2)
(Skin—Diseases) (Venereal diseases)

BATUMIN, M. P. Professor and Associates.

"The Study of the Interoceptor Connections of the Stomach and Skin in Certain Dermatoses."

Vestnik venerologii i dermatologii (Bulletin of Venerology Dermatology),
No 1, January -February 1954 (biomper), Moscow.

BATUNIN, M.P.; MATUSIS, I.I.; GLAVINSKAYA, T.A.; PESINA, Z.A.; BOL'SHAKOVA, V.F.
YADOROVSKAYA, R.F.; RAPOPORT, B.N.; RUSSOWIK, S.I.

Use of ethyleneglycol monoethyl ether in dermatology. Vest. ven.
i derm. no.3:11-15 My-Je '54. (MIRA 7:8)

1. Iz Gor'kovskogo kozhno-venerologicheskogo instituta (dir. prof.
M.P.Batunin)

(SKIN, diseases,

*ther., 2-ethoxyethanol)

(ALCOHOL, ETHYL derivatives,

*2-ethoxyethanol, ther. of skin dis.)

BATUNIN, M.P., professor

"Gonorrhea"; organizational and methodological materials. Re-
viewed by M.P. Batunin. Vest.ven.i derm.no.3:59-60 My-Je '55.
(GONORRHEA) (MLRA 8:10)

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000203930007-7

✓ 6144 Results of the investigation
relative to the [redacted] [redacted]

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000203930007-7"

EXCERPTA MEDICA Sec 13 Vol 13/5 Dermatology May 59

1341. PENTABISMOL IN THE TREATMENT OF SYPHILIS (Russian text) -
Baturin M. P., Kagan M. Z., Moiseeva I. V., Remizova
E. N. and Remizov D. N. - NAUCH. ZAP. GORK. INST. DERM. I
VENER. KAF. KOZINO-VENER. BOLEZ. GGMI 1956, 17 (308-214)

Pentabismol, a Soviet water-soluble bismuth preparation, was tried out on 33 patients with primary or secondary syphilis. The preparation was given until the disappearance of clinical manifestations of syphilis, afterwards it was combined with novarsenobenzol. The spirochaetae disappeared from the lesions within 2 to 6 days after the administration of 2 to 6 ml. pentabismol, and secondary eruptions subsided after 4 to 7 ml. The preparation acted favourably on the serological reactions and did not adversely affect the detoxicating liver function. It was well tolerated by the patients, did not produce serious complications and proved to be highly effective in early active and recurring forms of syphilis.

(S)

BATUNIN, M.P., prof., zasluzhennyy deyatel' nauki; KAGAN, M.Z., starshiy nauchnyy sotrudnik; MIKHAYLOV, K.A., dotsent; MOSYREVA, N.N., nauchnyy sotrudnik; KHIZHIN, V.Yu., nauchnyy sotrudnik

Observations on the treatment of syphilitic patients with bicillin I.
Vest.derm.i ven. 33 no.5:50-54 S-O '59. (MIRA 13:2)

1. Iz Gor'kovskogo nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta i kafedry kozhno-venericheskikh bolezney Gor'kovskogo gosudarstvennogo meditsinskogo instituta imeni S.M. Kirova (direktor instituta i zaveduyushchiy kafedroy - zasluzhennyy deyatel' nauki prof. M.P. Batunin).

(SYPHILIS ther.)
(PENICILLIN ther.)

BATUNIN, M.P.; BERLIN, G.A.

Is a repeated Wasserman test necessary for pregnant subjects?
West.derm.1 ven. 34 no.8161-62 '60. (MIRA 13:11)
(SYPHILIS-WASSELMANN REACTION)

BATUNIN, M.P.; BERLIN, G.A.

Wassermann examination of patients in somatic hospitals. Vest,
derm.i ven. no.1:63-64 '62. (MIRA 15:1)
(SYPHILIS—DIAGNOSIS—WASSERMANN REACTION)

BATUNIN, M.P., prof.

Development of theoretical dermatoveneredogy in Gorki during 1921-
1961. Biul. Uch.med. sov. 3 no.2:12-16 Mir-ap '62. (MIRA 15:4)
(GORKI--SKIN--DISEASES)
(GORKI--VENEREAL DISEASES)

BATUNIN, M.P., zasluzhennyy deyatel' nauki, prof.; BERLIN, G.A.,
zasluzhennyy vrach RSFSR, kand.med.nauk

Role of mass serological examinations for the detection of
latent syphilis. Vest. derm. i ven. 37 no.1:66-69 Ja'63.

(MIRA 16:10)

(SYPHILIS--DIAGNOSIS)

BATUNIN, M.P.; GLAVINSKAYA, T.A.; SAKHAROVA, V.S.

Effect of external β -irradiation on the metabolism of thiamine,
nicotinic acid and transaminase. Med. rad. 10 no.1:62-65 Ja '65.
(MIRA 18:7)

1. Kafedra kozhnykh i venericheskikh bolezney (zav. - prof. M.P.
Baturin) Gor'kovskogo meditsinskogo instituta imeni Kirova i
Gor'kovskiy nauchno-issledovatel'skiy kozhno-venerologicheskiy
institut.

BATUNIN, P.A., inzh. po tekhnike bezopasnosti sluzhby puti; ZHUKOV, R.P.,
inzh.

We are providing for safety. Put' i put.khoz. 6 no.5:44 '62.
(MIRA 15:4)

1. Ashinskaya distantsiya Kuybyshevskoy dorogi.
(Industrial safety) (Railroads--Employees)

BATUNER, P.D.

Accelerated construction of No.6 lock of the Volga-Baltic Sea
Waterway. Transp. stroi. 14 no.6:21-24 Je '64.

1. Glavnnyy inzh. upravleniya Volgobaltstroy.

(MIRA 18:2)

BATUNIN, M.P., prof.

Review of M.S.Kaplun's book "Collection of transactions of the
Scientific and Practical Conference of the Dermatologists and
Venereologists of Siberia, the North and the Far East." Vest.
derm. i ven. 38 no.9:84-85 S '64. (MIRA 18:4)

TSELLARIUS, Yu.G., dotsent; PASHKOVA, V.S., kand.med.nauk; BATUNINA, L.M.

Problem of aspergillosis of the internal organs. Klin.med. 38
no.10:119-123 0 '60. (MIRA 13:11)

1. Iz kafedry patologicheskoy anatomii (sav. - prof. S.A. Vinogradov) i kafedry fakul'tetskoy terapii (sav. - prof. M.V. Kakhanovich) Krymskogo meditsinskogo instituta imeni Stalina (dir. - dotsent S.I. Georgievskiy).
(MEDICAL MYCOLOGY)

EXCERPTA MEDICA Sec.3 Vol.10/8 Endocrinology Aug.56

1446. BATUNINA V.Ya. *Experimental diabetes (Russian text)
ARKH. PATOL. 1955, 4 (82-83)

Description of research in the field of diabetes. Four main conclusions: (1) In diabetes in male rats O₂ consumption appreciably increases following removal of the cerebral cortex. (2) Increased tissue metabolism after removal of brain, liver and muscles is to a certain extent evidence for increased use of energy resources in diabetes. (3) There is some kind of correlation between the O₂ consumption, following removal of the cerebral cortex, and the blood sugar level. (4) Changes in the O₂ consumption after removal of the brain are indicative of the involvement of the CNS in the pathogenesis of the ensuing disorder. Boerman - Oss

Chair of Patholog. Physiol., Gor'kiy Pedical Inst. im. Kirov

USSR/Human and Animal Physiology (Normal and Pathological).
Digestion

T-7

Abs Jour : Ref Zhur - Biol., No 11, 1958, 50905

Author : Batunina, V.Ya.

Inst Title : Absorption of Zn⁶⁵ by the Pancreas and by Other Organs of White Rats in Experimentally Induced Disturbances of the Higher Nervous System.

Orig Pub : Arkhiv patologii, 1957, 19, No 1, 42-45.

Abstract : A solution of Zn⁶⁵ was subcutaneously injected into white rats, and 1-2 hours after the injection the radioactivity of liver, kidneys, spleen, and pancreas (P) was investigated. The largest amount of Zn⁶⁵ was found to be present in the liver, and smaller amounts in P, in the kidneys, and in the spleen. In rats with a strong derangement of higher nervous activity (HNA) (4050 repetitions of a 30-minute traumatization by penetrating sounds, which was

Card 1/2

BATUNINA, V.Ya.; ORESHKEVICH, S.A. (Gor'kiy)

Effect of birch white rot callus and camphor on the development of sarcomas in white rats following the administration of 9,10-dimethyl-1,2-benzanthracene. Pat.fiziol. i eksp.terap. 3 no.1:75 Ja-F '59. (MIRA 12:2)

1. Iz kafedry patologicheskoy fiziologii (ispolnyayushchiy obyazannosti zaveduyushchego - dots. V.Ya. Batunina) i kafedry farmakologii (zav. - prof. N.P. Sinitsyn) Gor'kovskogo meditsinskogo instituta im. S.M. Kirova.

(BENZANTHRAKENE) (TUMORS) (CAMPHEPHOR)

SHCHAPOV, M.A., starshiy nauchnyy sotrudnik; IVANOVA, M.I.; BATUNOVA, N.A.,
inzh.; NEKLYUDOV, A.N.

Determining the optimum braking load of the tension devices on
winding and warping machines. Tekst. prom. 25 no.4:33-35 Ap '65.

1. Ivanovskiy nauchno-issledovatel'skiy institut tekstil'noy
promyshlennosti (for Shchapov). 2. Nachal'nik laboratori
tekstil'noy fabriki imeni Dzerzhinskogo (for Ivanova).
3. Laboratoriya tekstil'noy fabriki imeni Dzerzhinskogo (for
Batunova). 4. Zamestitel' nachal'nika motal'no-snoval'nogo
otdela tekstil'noy fabriki imeni Dzerzhinskogo (for Neklyudov).

MINIOVICH, P. A. - BATUNSKAYA, E. I.

Nervous System - Diseases

Penicillin therapy of acute neural virus infections.
Zhur. nevr. i psikh. no. 2, 1953

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

BATUNSKA YA, R.I.

Is there evidence of acute neuro infections? P. A. Levine

There is evidence of acute neuro infections. There is evidence of acute encephalitis and acute meningitis. These infections are usually treated with penicillin. The administration of penicillin to patients with acute encephalitis and encephalitis is usually successful. The cure and recovery rate

number of cases benefiting from such treatment as compared with other standard and usually employed treatments

P. A. Levine

BATURA, F.G.

GUT'YAR, Ye. M., professor; MAL'GIN, A.D., inzhener; SERGEYEV, M.P.,
professor, retsenzent; BATURA, F.G., inzhener, retsenzent
MANAKIN, N.V., inzhener, redaktor; SOKOLOVA, T.P., tekhnicheskij
redaktor

[Machinery] Mashinovedenie. Moskva, Gos. nauchno-tekhn. izd-vo
mashinostroit. lit-ry, 1954. 408 p.
(Machinery) (MLRA 7:10)

POLAND

RUTKOWSKI, Antoni, CHUDY, Jan, SATURA, Jadwiga, and KOSKO, Irena, Chair of Food Technology and Preservation (Katedra Technologii Zywosci i Przechowalnictwa), the WSR [Wyzsza Szkoła Rolnicza, Higher School of Agriculture] in Olsztyn (Director: Prof. Dr. A. RUTKOWSKI)

"Fats of Fur Animals. I. Characteristics of the Fat of the Mink (*Mustela vison Schreb.*)."

Warsaw-Lublin, Nedycyna Weterynaryjna, Vol 19, No 5, May '63, pp 250-254.

Abstract: [Authors' English summary] Investigations revealed that the subcutaneous fat tissue of the minks varies in composition from its fat around the kidneys and mesentery. It is considerably richer in palmitic and linoleic acids, poorer in stearic, and contains about the same percentage of myristinic acid (7 percent). The composition and easier accessibility of the subcutaneous fat offers a possibility of its utilization, primarily in the cosmetic and pharmaceutical industries. There are nine (9) references, of which 6 are Polish, 2 German, and one is English.

1/1

LITMANOVICH, I.M.; PAPUSHIN, L.L.; BEYZER, V.N.; BATURA, N.I.

Comparative testing of dewatering centrifuges. Koks i khim. no.3:11-14
'63. (MIRA 16:3)

1. Yasinovskiy koksokhimicheskiy zavod.
(Donets Basin—Coal preparation) (Centrifuges—Testing)

BATURA, S. E.

L 54550-65

EHT(d)/EED-2/EWP(1) Pg-4/Pg-4/Pk-4 IJP(c) BB/CC

2

ACCESSION NR: AP5015524

UR/0286/65/000/008/0064/0065

AUTHORS: Misulovin, L. Ya.; Auxin', V. Ya.; Maksimenko, N. A.; Lerner, Ye. L.;
Stroy, I. G.; Batura, S. E.; Shlyvakhina, D. A.

3/
30
B

TITLE: Parallel-series shift register, Class 42, No. 170203

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 8, 1965, 64-65

TOPIC TAGS: shift register

ABSTRACT: This Author Certificate presents a parallel-series shift register having potential triggers with gates at the recording inputs. To decrease the number of storage units, the register contains basic registers for parallel information recording and one auxiliary register controlling the shift of information in the basic registers. The outputs of each preceding trigger are connected to the record gate inputs of the next (see Fig. 1 on the Enclosure). The second inputs of the zero record gates of the auxiliary register are connected to the input for the shift pulse series at output, the one record gates are connected to the input for the shift pulse series at recording. The second input of the record gate of each trigger of the basic register is connected to the zero output of the trigger of the auxiliary register with the same number. The numeration
Card 1/2

L 54550-63

ACCESSION NR: AP5015524

of the basic and auxiliary registers is opposite. Orig. art. has: 1 diagram.

ASSOCIATION: Gosudarstvennyy elektrotekhnicheskiy zavod VEF (State Electrical
Engineering Plant VEF)

SUBMITTED: 02Jan64

ENCL: 01

SUB CODE: DP

NO REF Sov: 000

OTHER: 000

Card 2/32

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000203930007-7

BATURA V. A.

ХИМИЧЕСКИЕ ПРОЦЕССЫ ОБРАЗОВАНИЯ
ГЛУХОГОВЫХ ТОПЛИВ

В. Е. Радченко, Н. Н. Журавлева, В. С. Борисов,
М. А. Федорова, А. Е. Кузнецова, В. А. Борисов

VIII Mendeleev Congress for General and Applied Chemistry II
Section of Chemistry and Chemical Technology of Fuels,
publ. by Acad. Sci. USSR, Moscow 1977

Abstracts of reports scheduled to be presented at above mentioned congress,
Moscow, 15 March 1979.

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000203930007-7"

BATURA, V. A.; PIGULEVSKAYA, L.; RAKOVSKIY, V. Ye.

"Types of humus fuel and their formation."

Report submitted for the 2nd International Peat Congress, Leningrad,
15-22 Aug 63.

GALUSHKO, V.P.; ZAVGORODNYAYA, Ye.F.; SEMERYUK, V.I.; BATURA, Z.Ye.

Cathodic reduction of copper oxide. Zhur.prikl.khim. 34 no.8:1819-
1825 Ag '61. (MIRA 14:8)

(Copper oxide) (Reduction, Electrolytic)

L 34198-65 SWP(m)/SWP(t)/SWP(b) 10/16/62 A
APPROVAL NO. 485807470

AUTHOR: Nashodanova, A. F., Batura, Z. Ye.

TITLE: The problem of preparing finely dispersed powders of the binary and ternary
oxides and salts of barium, strontium, calcium

141

TOPIC TAGS: barium carbonate, strontium carbonate, calcium carbonate, effect of
temperature on rate of calcination, thermal properties

ABSTRACT: The authors studied the effect of temperature on the rate of calcination
of binary and ternary oxides and salts of barium, strontium, calcium.

Barium, strontium, and calcium carbonates were precipitated with ammonia and carbon dioxide and
the resulting white solids were calcined at temperatures of 1000°, 1100°, and 1200° C.

The results show that the rate of calcination increases with increasing temperature. At 1000° C., the
calcination time is 10 hours; at 1100° C., it is 2 hours; and at 1200° C., it is 1 hour.

Card 1/2

L 34198-65
ACCESSION NR: AP5007620

ture, the crystal dimensions decreased from 30 to 6 μ with an increase in nitrate concentration from 10 to 20 wt%. Furthermore, the crystallization rate increased with increasing temperature.

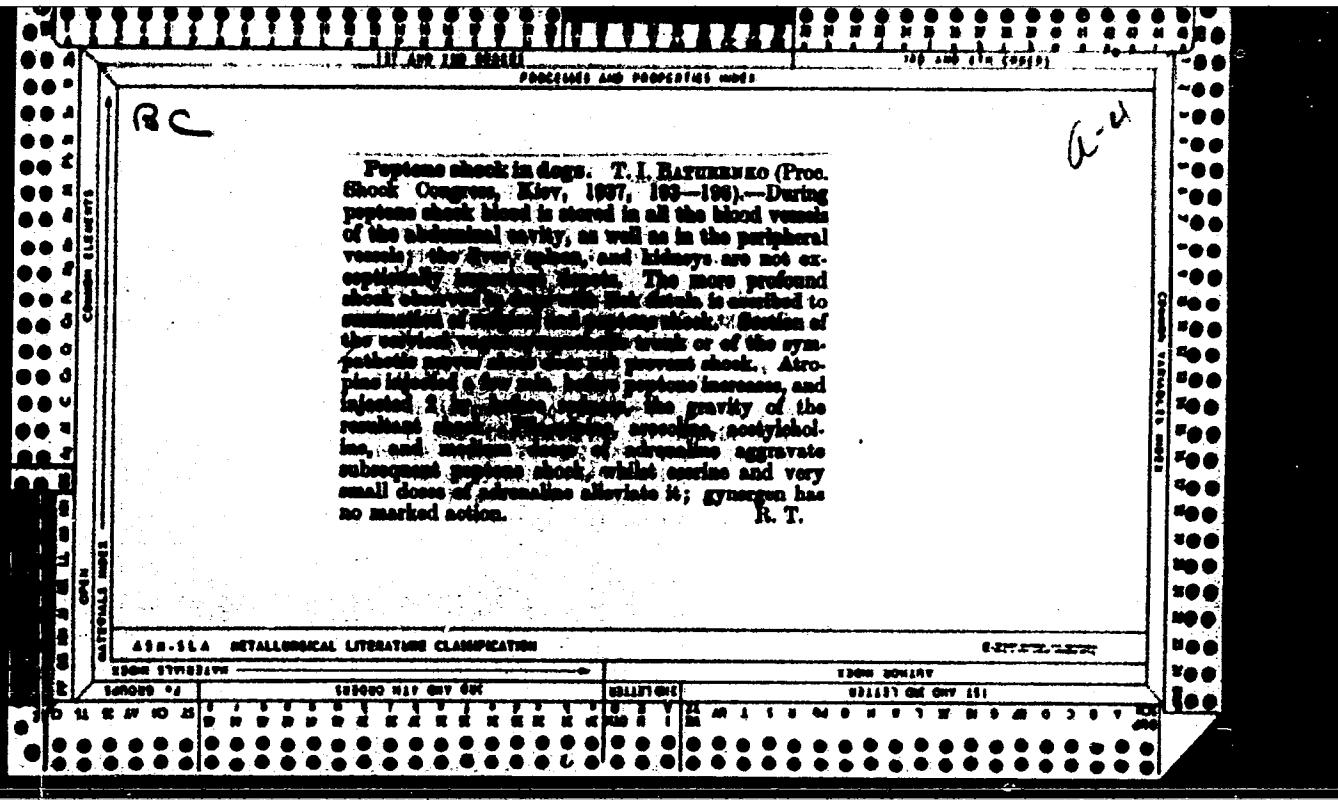
It was found that the crystallization rate decreased with increasing concentration of the solution.

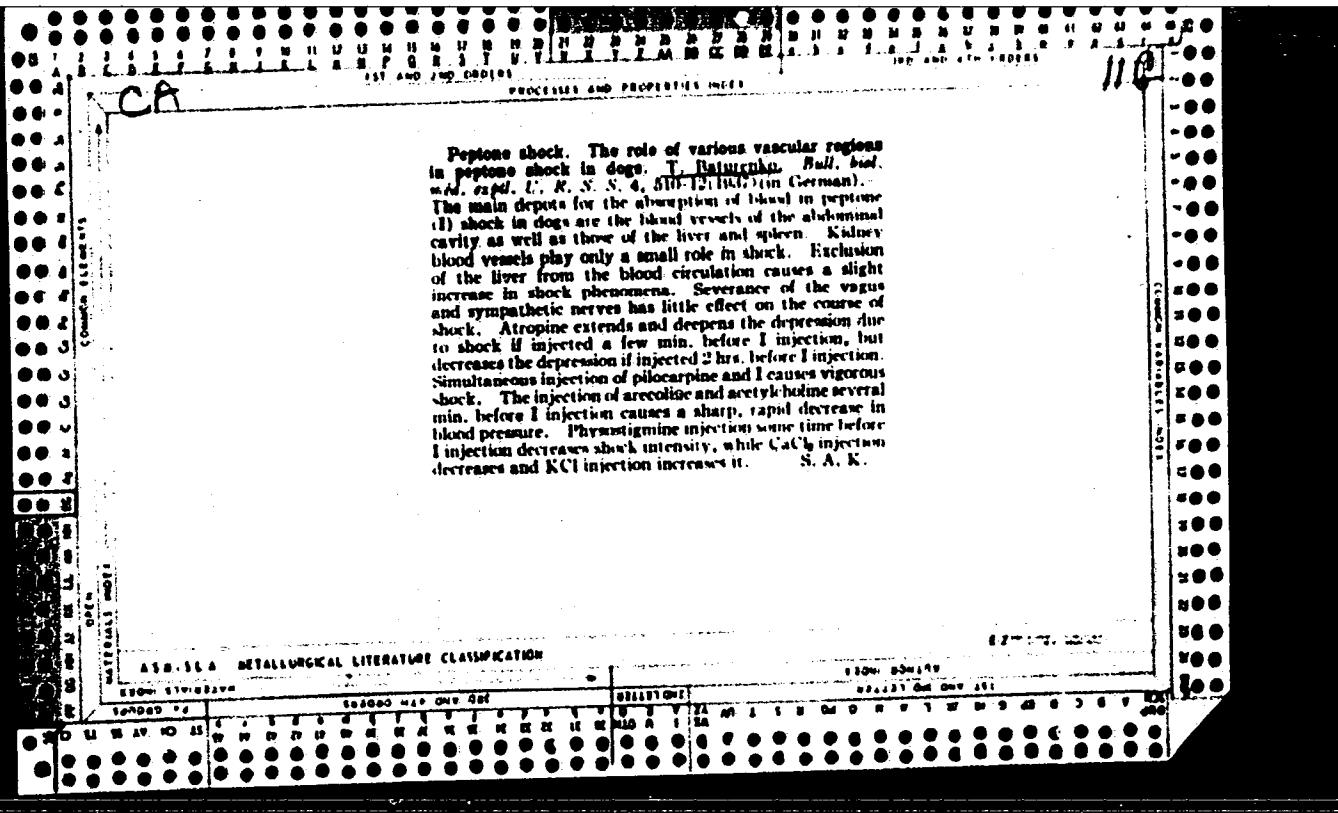
ASSOCIATION: Filial instituta reaktivov i osobochistvkh veshchestv Vsesoyuznogo nauchno-issledovatel'skogo i proizvodstvennogo instituta po radioelementam i radioisotopam

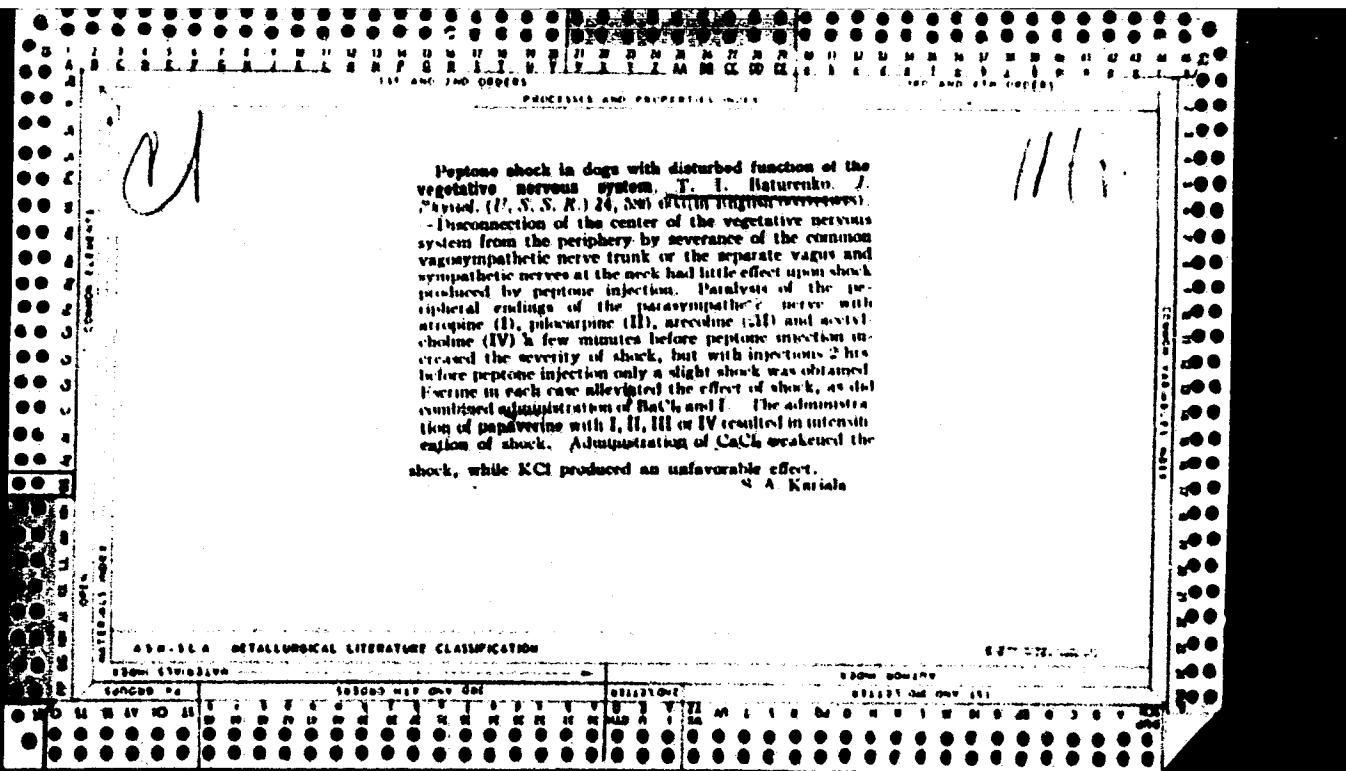
Card 2/2

TITOVA, V.A., NATURA, Z.Ya.

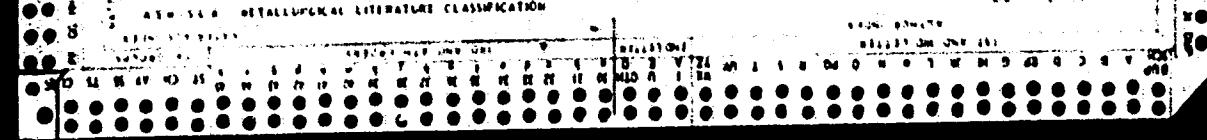
System NaCNS ~ NaCl - H₂O at boiling temperatures. Zhur.
neorg. khim. 10 no. 7:171-1712 Jl '65. (MIRA 18:8)







Paradoxical response to intravenous peptone administered. Vn. A. Petrovskii, I. I. Maturovskii, A. G. Kavchenskii and N. G. Sverdlin. J. Physiol. (U.S.S.R.) 23, 530-8 (in English, 538) (1938). - The administration of peptone (I) to dogs in a condition of shock from histamine (II) or curare results in a rise instead of a fall in blood pressure. The effect disappears when I is injected during recovery of the vascular tonus after injection of II. When the spinal cord is severed or the heart muscle is weakened by large doses of tinctura straphantidi the injection of I produces the usual depressor response. No rise occurs in adrenalectomized dogs, when II is injected after I. The paradoxical response may be due to increased adrenaline secretion. S. A. Kartash.



BATURENKO, T. I.

"The Peptone Shock upon the Disturbance of the Thyroid Function,"
Farmakol. i Toksikol., 4, No. 3, 1941

Chair of Pharmacology, Dnepropetrovsk Med. Inst.

BATURENKO, T. I.

Reflex changes in blood sugar following perfusion of an adrenalin solution through organs cut off from the blood circulation. Ferm. 1 toks. 19, no. 2:24-28 Mr-Ap '56. (MLRA 9:7)

1. Kafedra farmakologii (zav. - prof. T. I. Baturenko) Dnepropetrovskogo fermatsevticheskogo instituta.

(Blood sugar, effect of drugs on,
epinephrine, variations in perfusion through various organs (Rus))

(Epinephrine, effects,
on blood sugar, variations in perfusion through various organs (Rus))

BATUZHIN, I. I., AND ZHITOVICH, T. I., OF DNEPROPETROVSK

"On the Results of the Pharmacological Investigation of the Medicinal Flora of Southeastern Ukraine," a paper presented at the Fifth Conference of Physiologists, Biochemists, and Pharmacologists, 28 May - 2 June 1956, Khar'kov.

"Preparations of motherwort reduced blood pressure in dogs with persistent hypertension, and had an inotropic effect on the heart. Seven preparations prepared from the leaves of hawthorn were found to be effective hypotensive agents. Alkaloids isolated from groundsel by A. L. Red'ko were found to have a tranquilizing effect on the organism. In large doses they depressed the central nervous system. The chololytic action of these alkaloids was found to be less pronounced than that of atropine. They were found to possess spasmolytic properties."

BATURENKO, T. I.

USSR/Pharmacology. Pharmacognosy. Toxicology - Cholinergic Drug. T-2

Abs Jour : Referat Zhur - Biologiya, No 16, 1957, 71664

Author : Baturenko, T.I., Grigorovich, A.E.

Inst :

Title : The Effect of Senecio Borystenicus Alkaloid on Some of
the Functions of the Organism.

Orig Pub : Coll.: Nekotoryye Voprosy Farmatsii, Kiev, Gosmedisdat,
USSR, 1956, 295-301

Abstract : The cholinolytic action of the alkaloid (I) from Senecio
borystenicus was tested on frogs, rabbits and dogs.
In intravenous introduction of I in 10-20 mg/kg in 10 per-
cent solution into warm-blooded animals, under urethane
anaesthesia, lowering of blood pressure was observed.
The severance of spine and bilateral vagotomy did not pro-
duce a hypotensive effect. In tests with isolated frog
hearts I in 1:10 and 1:500 thousand weakened the heart
beat. I in doses of 5-10 mg/kg had no effect on a rabbit

Card 1/2

- 13 -

USSR/Pharmacology. Pharmacognosy. Toxicology - Cholomericetic Drug. T-2

Abs Jour : Referat Zhur - Biologiya, No 16, 1957, 71664

heart in situ, but at the same time reestablished the heart action, stopped by arecholine. By introduction of I in 50 mg dose into dogs with a fistula of the maxillary salivation gland the secretion of the salivary gland was decreased. It was shown that I in a concentration of one to 100,000 lowers the tone and contraction amplitude of an isolated piece of a rabbit intestine, and in the presence of atropine lowers the tone and amplitude even more. Through simultaneous introduction of I and Barium chloride the depressing action of I on the intestinal muscles was confirmed. In the authors opinion the low toxicity and distinct spasmolytic effect (though weaker than that of atropine) of I makes it an acceptable atropine substitute.

Card 2/2

- 14 -

BATURENKO, T.I.; ZLENKO, Ye.T.

Review of the collection of articles "Pharmacology of pain".
Farm. i toks. 26 no.6:757-758 N-D '63 (MIRA 18:2)

L 08268-67 FSS-2/EWT(1)/EEC(k)-2 SCTB TT/DD/GD/GW
ACC NR: AT6036481 SOURCE CODE: UR/0000/66/000/000/0036/0037

AUTHOR: Arzhanov, I. M.; Bryandov, I. I.; Baturenko, V. A.; Beregovkin, A. V.;
Buyanov, P. V.; Kovalev, V. V.; Kondrakov, V. M.; Krasovskiy, A. S.; Kuznetsov, O. N.;
Kuznetsov, S. V.; Nikitin, A. V.; Nistratov, V. V.; Teret'yev, V. G.; Fedorov, Ye. A.;
Khlebnikov, G. V.

ORG: none

TITLE: Some results of the postflight examination of P. I. Belyayev and A. A. Leonov following their flight on the Voskhod-2 spacecraft [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24 to 27 May 1966] S2
B4/

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 36-37

TOPIC TAGS: space medicine, postflight medical examination, bodily fatigue, body weight, cardiovascular system, oculocardiac reflex, unconditioned reflex, space psychology, oxygen consumption, respiration, pulmonary ventilation/Voskhod-2

ABSTRACT: Postflight examinations of the Voskhod-2 crew members, Leonov and Belyayev, were performed on the third and fourth days after the flight and again a month later. The cosmonauts complained of light fatigue. They were found to have hyperemia of the mucosa of the nose and throat and conjunctivitis of the eyelids and eyeballs. They had lost weight

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L 08268-67

ACC NR: AT6036481

Their pulse showed a certain lability. Pulse frequency rose significantly during mild physical exertions and changes in the position of the body. There was an increase in intraventricular conductivity, an increase in the systolic index (7-11%), and a delay in restoration of hemodynamic indices after physical exercise.

Belyayev's oxygen consumption increased by 23% and Leonov's by 14% as compared with preflight levels. Vital capacity of the lungs diminished by 8-12%, while pulmonary ventilation increased by 51-18%.

Neurological examinations revealed a light tremor of the fingers, a high orthostatic reflex with an absence of pulse reaction to the oculocardiac reflex, and an increase in the slow bioelectrical activity of the brain cortex. Psychological tests revealed an increase in distribution and in the middle magnitudes of the duration of the period of sensory motor reaction. Since this was not accompanied by errors, it is possible to assume that the fatigue observed in cosmonauts was a compensatory reaction. Blood and urine examination on the third day after flight did not differ substantially from preflight levels. Biochemical examination uncovered an increase of chlorides, adrenalin, noradrenalin, and 17-oxy corticosteroids in the urine.

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L-08268-67

ACC NR: AT6036481

The observed shifts in physiological indices were short-term and reversible. They indicated the development of moderately marked fatigue in the subjects. Thus, despite the complexity of the flight, the postflight examinations revealed only moderate functional changes in the two cosmonauts. There was no difference in the nature of these changes in the cosmonauts. This indicates a high degree of training and a good neuropsychological and physical preparation for spaceflight. [W.A. No. 22; ATD Report 66-116]

SUB CODE: 06, 22 / SUBM DATE: 00May66

Card 3/3 29k

SOV/137-58-9-19672

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 211 (USSR)

AUTHORS: Borovskiy, I.B., Ditsman, S.A., Baturev, V.A.

TITLE: On the Problem of the Role of ~~Small~~ Amounts of Substitution
Admixtures in Alloys [K voprosu o roli malykh primesey
zameshcheniya v splavakh (II)]

PERIODICAL: V sb.: Issled. po zharoprochn. splavam. Vol 2. Moscow, AN
SSSR, 1957, pp 246-250

ABSTRACT: The effect of admixtures on the electron energy spectrum of Cr (of various degrees of purity), Mo, and Cr in Cr-Mo alloys was investigated. X-ray spectra of iodide Cr (99.97%), electrolytic Cr (99.80-99.85%), hydride Cr (99.5%), and Mo (99.1%) were studied. Absorption and emission spectra of Cr were obtained on a spectrograph according to Johann in the second order of reflection from a quartz crystal bent along a radius of 500 mm, using the reflection from the (1010) face. It is established that with a decrease in the contents of additives in Cr, the lines $K\beta_1$ and $K\beta_5$ are displaced in the short-wave sense and the index of asymmetry of the line of $K\alpha_1$ is sharply modified, but the absorption K-edge does not vary. With a

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SOV/137-58-9-19672

On the Problem of the Role of Small Amounts of Substitution (cont.)

variation in the content of Mo in alloys from 0.53 to 14 atom % the variation in the position of the K β_1 and K β_5 lines begins only with an Mo content of 12 atom %. The L₁₁₁ -edge of Mo differs from the one described in literature. The conclusions are that, 1) small amounts of admixtures affect the electronic spectrum of Cr, 2) upon a change-over from iodide to hydride Cr, the boundary of the Fermi plane and the 3p band are displaced in the direction of lower energies, 3) a similar behavior of the Fermi boundary and the inner levels takes place in Cr-Mo alloys, but with an increase in the Mo content the relative variation of the electron spectrum is weaker than in the presence of small amounts of admixtures. For the preceding report see RZhMet, 1958, Nr 7, abstract 15571.

I.D.

1. Chromium--Spectrographic analysis 2. Chromium alloys--Spectrographic analysis

Card 2/2

BATURIC, Josip, dr inz.; BATURIC, Ivan, inz.; BATORIC, Jasna, inz.

Balancing by electric analogy. Rud met zbor no. 2:103-110
'63.

1. Rudarski odjel TF, Zagreb (for Josip Baturic).
2. Rudarski fakultet, Tuzla (for Ivan Baturic).
3. Prirodoslovno-matematički fakultet, Zagreb (for Jasna Baturic).

BATURIC, Josip, redovni profesor; BATURIC, Ivan, inz., predavac;
Baturic, Jasna, inz., asistent

Leveling with electric analogy. Pt.2. Rud met zbor no.3:
213-223 '63.

1. Rudarski odjel Sveucilista, Zagreb (for Josip Baturic).
2. Rudarski fakultet, Tuzla (for Ivan Baturic).
3. Prirodoslovno-matematički fakultet, Zagreb (for Jasna Baturic).

BATURIC, Josip, dr inz., redovni professor; BATURIC, Ivan, inz., predavac;
BATURIC, Jasna, ing. mgr., asistent

Leveling with electric analogy, Pt.3. Rud met zbor 4:
373-384 '63.

1. Rudarski odjel Sveučilišta, Zagreb (for Baturic, Josip).
2. Rudarski fakultet, Tuzla (for Baturic, Ivan).
3. Prirodoslovno-matemat. fakultet, Zagreb (for Baturic, Jasna).

BATURIC, J.

"Equalization By The Method Of Arithmetic Mean" p. 209. (Geodetski List, Vol. 6,
no. 10/12, Oct./Dec., 1952, Zagreb.)

SO: Monthly List of East European Accessions, Vol. 3, No. 2,
Library of Congress, February 1953, Uncl.

BATURIC, Josip, dr inz.; BATURIC, Ivan, inz.; BATURIC, Jasna, inz.

Balancing by electric analogy. Rud met zbor no. 2:103-110
'63.

1. Rudarski odjel TF, Zagreb (for Josip Baturic).
2. Rudarski fakultet, Tuzla (for Ivan Baturic).
3. Prirodoslovno-matematički fakultet, Zagreb (for Jasna Baturic).

BATURIC, Josip, redovni profesor; BATURIC, Ivan, inz., predavac;
BATURIC, Jasna, inz., asistent

Leveling with electric analogy. Pt.2. Rud met zbor no.3:
213-223 '63.

1. Rudarski odjel Sveucilista, Zagreb (for Josip Baturic).
2. Rudarski fakultet, Tuzla (for Ivan Baturic).
3. Prirodoslovno-matematički fakultet, Zagreb (for Jasna Baturic).

BATURIC, Josip, dr inz., redovni professor; BATURIC, Ivan, inz., predavac;
BATURIC, Jasna, ing. mgr., asistent

Leveling with electric analogy, Pt.3. Rud met zbor 4:
373-384 '63.

1. Rudarski odjel Sveučilišta, Zagreb (for Baturic, Josip).
2. Rudarski fakultet, Tuzla (for Baturic, Ivan).
3. Prirodoslovno-matemat. fakultet, Zagreb (for Baturic, Jasna).

BATURIC, Josip, dr inz.; BATURIC, Ivan, inz.; BATURIC, Jasna, inz.

Balancing by electric analogy. Rud met zbor no. 2:103-110
'63.

1. Rudarski odjel TF, Zagreb (for Josip Baturic).
2. Rudarski fakultet, Tuzla (for Ivan Baturic).
3. Prirodoslovno-matematički fakultet, Zagreb (for Jasna Baturic).

BATURIC, Josip, redovni profesor; BATURIC, Ivan, inz., predavac;
BATURIC, Jasna, inz., asistent

Leveling with electric analogy. Pt.2. Rud met zbor no.3:
213-223 '63.

1. Rudarski odjel Sveucilista, Zagreb (for Josip Baturic).
2. Rudarski fakultet, Tuzla (for Ivan Baturic).
3. Prirodoslovno-matematicki fakultet, Zagreb (for Jasna Baturic).

BATURIC, Josip, dr inz., redovni professor; BATURIC, Ivan, inz., predavac;
BATURIC, Jasna, ing. mgr., asistent

Leveling with electric analogy, Pt.3. Rud met zbor 4:
373-384 '63.

1. Rudarski odjel Sveucilista, Zagreb (for Baturic, Josip).
2. Rudarski fakultet, Tuzla (for Baturic, Ivan).
3. Prirodoslovno-matemat. fakultet, Zagreb (for Baturic, Jasna).

SOV/51-5-6-15/19

AUTHORS: Bogunets, N.P., Baturicheva, Z.B. and Naboykin, Yu.V.

TITLE: Infrared Absorption Spectra of Certain Pyrazole Derivatives in the 2.5-4.5 μ Region (Infrakrasnyye spektry pogloshcheniya nekotorykh proizvodnykh pirazola v oblasti 2.5-4.5 μ)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol 5, Nr 6, pp 707-708 (USSR)

ABSTRACT: Pyrazole and its methyl derivatives with free imino hydrogen are associated by formation of an intermolecular hydrogen bond of the $>\text{N-H...N}<$ type. This is confirmed by the infrared absorption spectra of these compounds (Refs 1, 2). The ultraviolet absorption spectra of pyrazole and its methyl derivatives do not show the effect of formation of this hydrogen bond (Ref 3). The present paper deals with the infrared absorption spectra of the following ethoxy-derivatives of pyrazole with free imino nitrogen: 3-methyl-5-ethoxypyrazole (I), (substance I in a table on p 708) and 3,4-dimethyl-5-ethoxypyrazole (II), as well as the infrared spectra of 1,3-dimethyl-5-ethoxypyrazole (III) in which imino hydrogen is replaced by a methyl group. The spectra were measured in the region of valence vibrations of the NH group using an IKS-11 infrared spectrometer with a LiF prism. The absorption spectra were obtained both for crystals in the form of thin layers on NaCl plates

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SOV/51-5-6-15/19

Infrared Absorption Spectra of Certain Pyrazole Derivatives in the 2.5-4.5 μ Region

and for solutions in carbon tetrachbride. The results are given in the table on p 708. Cols 1 and 2 give the frequencies for a solution and a crystal sample of compound I, cols 3 and 4 give the frquencies of a solution and a crystal sample of compound II and col 5 gives the frequencies of a solution of compound III. The 2.85 μ band appears in solutions of I and II, which contain the NH group. The 3.14, 3.21 and 3.25 μ bands were observed in crystalline samples and not-to-dilute solutions of compounds I and II. These three bands are due to antisymmetrical vibrations of nitrogen atoms bound with hydrogen in a six-member ring of the double molecule. The remaining bands appear in all the three compounds and are due to valence vibrations of the CH_1CH_2 (original in error?) and CH_3 groups. The results should suggest that dimerization in these three compounds occurs by formation of intermolecular hydrogen bonds of the same type as in the methyl derivatives of pyrazole (Refs 1, 2). There are 1 table, 1 figure and 3 references, 1 of which is Soviet, 1 Italian and 1 German.

SUBMITTED: June 16, 1958

Card 2/2

24.3500

69275
S/051/60/008/04/019/032
E201/E691

AUTHORS:

Startsev, V.I., Baturicheva, Z.B. and Tairlin, Yu.A.

TITLE:

The Temperature Dependence of Luminescence of NaI(Tl) Crystals at
Temperatures of 0-270°C. 21 ✓

PERIODICAL: Optika i spektroskopiya, 1960, Vol 8, Nr 4, pp 541-544 (USSR)

ABSTRACT: The reported (Refs 1-4) temperature dependences of the intensity of luminescence of NaI(Tl) are contradictory. The aim of the present work was to study the temperature dependence of the intensity of luminescence of NaI(Tl) with 0.05-0.1% Tl excited with γ -rays. The temperature dependence was obtained between 0 and 270°C at the rates of heating varying from 15 to 90 deg/hour. An NaI(Tl) crystal of 13 mm diameter and height (4 in Fig 1) was placed in an aluminium container 6 inside a copper block 3 which was joined by means of a copper rod with a heater. Temperatures were measured with a copper-constantan thermocouple and the temperature difference between the surface and the centre of the crystal did not exceed 2°C. A photomultiplier 9 (FEU-19) was separated from the crystal by a plane-parallel glass plate 7 and it was air cooled. The crystal was excited with γ -rays from Cs¹³⁷ ($E_{\gamma} = 661$ keV). Dependence of the anode current of the

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The Temperature Dependence of Luminescence of NaI(Tl) Crystals at Temperatures of 0-270°C

photomultiplier on the crystal temperature (integral measurements) was obtained by means of a microammeter M-91a across which a 10 μ F capacitance was connected (this ensured that $x = RC$ of the system was 4 sec). Alternately a pre-amplifier was connected to the photomultiplier anode and pulses from its output were fed to an oscillograph 25I and photographed (pulse measurements). The decay time was deduced from the form of the dependence of the pulse amplitude on the absolute temperature T and on x. After several heating-cooling cycles (Fig 2, curves 1 and 2) the intensity of luminescence was found to decrease linearly with rise of temperature at the rate of $0.12 \pm 0.03 \text{ %/deg}$ (Fig 2, curve 3). Luminescent properties of the crystals were not affected by the amount of thallium between 0.05 and 0.1%. At room temperature the main component of luminescence, amounting to 90-95% of the total signal, had a decay time $\tau_1 = 0.25 \mu\text{sec}$; the remaining 5-10% of luminescence had a decay time $\tau_2 = 0.7-1.2 \mu\text{sec}$. Dependence of the decay time τ_1 on temperature is shown in Fig 5. Theoretical dependences of the photomultiplier signal V on the absolute temperature T and on $x = RC$ calculated using $\kappa(T)$ and $V_0(T)$, where $V_0 = \lim V$ as $RC \rightarrow 0$. The theoretical

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curves agreed satisfactorily with the authors' experimental results (Ref 3) and with the data of Webb and Johanson (Ref 2) and Kinard (Ref 3), but they differed from the results reported by Solon et al., (Ref 1) and by Meessen (Ref 4). There are 5 figures and 7 references, 1 of which is Soviet, 5 English and 1 French. X

SUBMITTED: July 17, 1959

Card 3/3

ACCESSION NR: AR5005658

S/0058/64/000/012/D057/D057

SOURCE: Ref. zh. Fizika, Abs. 12D436

AUTHORS: Baturicheve, Z. B.; Tsirlin, Yu. A.

TITLE: Pulsed thermoluminescence of CsI(Tl) and NaI(Tl) crystals

CITED SOURCE: Sb. Stsintillyatory i sttsintillyats. materialy. Vyp. 3. Khar'kov, Khar'kovsk. un-t, 1963. 49-50

TOPIC TAGS: thermoluminescence, temperature dependence, x ray irradiation, luminescence peak, luminescent crystal

TRANSLATION: The authors measured the intensity of stationary luminescence and the heights of luminescence pulses of the crystals CsI-Tl and NaI-Tl (0.05% wt. Tl) excited by gamma rays from Cs¹³⁷ as a function of the crystal temperature in the interval 20--150°C. The curves were compared with the curves of thermal de-excitation of x-ray irradiated crystals. An agreement between the temperatures of the maxima was observed on the curves of all types. The results obtained are

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ACCESSION NR: AR5005658

attributed to the release of the captured electrons, resulting from local over-heating of the crystals in the regions of the gamma-ray tracks.

SUB CODE: OP ENCL: 00

Card 2/2

ACCESSION NR: AR4043996

S/0058/64/000/006/D073/D073

SOURCE: Ref. zh. Fizika, Abs 6D551

AUTHOR: Baturicheva, Z. B.; Tairlin, Yu. A.

TITLE: Negative thermoluminescence of alkali halides

CITED SOURCE: Sb. Sistemillyatory i sistemillyats. materialy*. Khar'kov, Khar'kovsk. un-t, 1963, 116-118

TOPIC TAGS: thermoluminescence, negative thermoluminescence, alkali halide, crystal cooling

TRANSLATION: Investigates the dependence of relative light yield on temperature in alkali-halide crystals of CsI-Tl and NaI-Tl with various activator concentrations. To exclude the influence of thermoluminescence the measurements were conducted during cooling of the crystal. The curve of the light-yield temperature dependence has step nature; on the thermoluminescence curve these steps correspond to the thermoluminescence maxima displaced somewhat toward higher temperatures.

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The obtained regularity is ascribed to "negative" thermoluminescence of crystals, i. e., to the neutron capture, occurring during crystal cooling, from the capture-center conduction band; this results in decreased light yield. There is given a kinetic analysis of the process of negative thermoluminescence.

SUB CODE: IC, OP

ENCL: 00

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L 16436-65 EPA(s)-2/BNT(m)/BMP(t)/BMP(b) Pt-10 IJP(c)/ASD(f)-2 JD/JG
ACCESSION NR: AP4048746 S/0051/64/017/005/0737/0738

AUTHORS: Baturicheva, Z. B.; Gurevich, N. Yu.; Tsirlin, Yu. A.;
Shvets, V. A.

TITLE: Effect of plastic deformation on the light yield of NaI(Tl)
crystals 21 27

SOURCE: Optika i spektroskopiya, v. 17, no. 5, 1964, 737-738

TOPIC TAGS: scintillator, plastic deformation, light yield

ABSTRACT: The purpose of the investigation was to determine the cause of the reduction in the light yield of a gamma-excited plastically deformed NaI(Tl) crystal with 0.07% Tl concentration by weight. The plastic deformation was produced with a hand vise. The samples in the form of plates measuring 1 x 10 x 10 mm were packed in special containers with a reflector made of aluminized dacron film, which served also as the container wall on the gamma-irradiation

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ACCESSION NR: AP4048746

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tion side. The light yield was measured relative to the characteristic copper K α line with a scintillation counter consisting of an FEU-29 photomultiplier and two single-channel AADO-1 differential analyzers, one of which served as an amplifier. The relative light yield was also measured under gamma irradiation from a 0.5 mCi Co⁶⁰ source by an integral method, using an FEU-29 photomultiplier and an M-95 microammeter. The experiments were performed at 25C. The absorption of the crystals was measured in the 500--1100 nm range with an SF-4 spectrophotometer. The light yield decreases with increasing plastic deformation, but the absorption remained practically constant. The transparency and the intensity of the high-temperature emission also decreased with increasing stress. It is concluded that not all the decrease in light yield is due to the increase in the absorption in the crystals, and that some of the decrease is due to a trapping of the luminescence centers by vacancies.

Orig. art. has: 2 figures.

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L 16L36-5L
ACCESSION NR: AP4048746

ASSOCIATION: None

SUBMITTED: 06Jan64

SUB CODE: OP

NR REF SOV: 001

ENCL: 00

OTHER: 001

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L 5455-66 EWT(1)/EWT(m)/T/EWP(t)/EWP(b) IJP(c) JD/JG/GG

ACC NR: AP5025097

SOURCE CODE: UR/0368/65/003/003/0282/0284

AUTHORS: Baturicheva, Z. B.; Gurevich, N. Yu.; Tsirlin, Yu. A.

ORG: none

TITLE: On the influence of plastic deformation on the storage of light quantity in crystals of NaI(Tl). Reported at the 12th Conference on Luminescence in L'vov

SOURCE: Zhurnal prikladnoy spektroskopii, v. 3, no. 3, 1965, 282-284

TOPIC TAGS: luminescence, luminescence research, luminescence crystal, luminescence spectrum, lithium iodide, sodium iodide

ABSTRACT: The thermal and thermo-optical scintillation curves for NaI-(Tl) crystals containing various concentrations of Tl were determined. The excitation was realized by means of x-rays at room temperature. The heating rate was 0.8 degrees/sec, and the crystals were deformed by means of a vise. The experimental results are presented graphically (see Fig. 1). From these experimental results it is concluded that the temporal integral stored in NaI(Tl) crystals, x-rayed at room temperature, is mainly due to thallium capture centers. This conclusion

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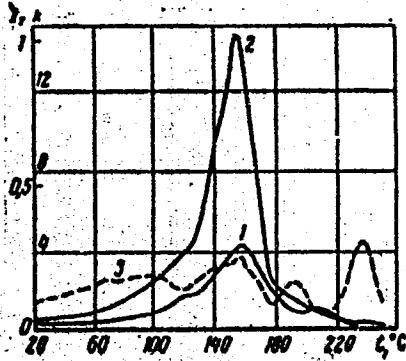


Fig. 1. Thermoscintillation curves I_T (relative units) for nondeformed (1) and deformed, by 10% (2) NaI(Tl) crystals, and the temperature dependence k (3), equal to the ratio of thermoscintillation intensity of deformed to nondeformed crystals

is in agreement with the data of R. A. Kink and G. G. Liyd'ya (Trudy IFA AN ESSR,
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ACC NR: AP5025097

23, 109, 1963). Deformed and nondeformed crystals of LiI(T_X) showed a similar behavior. On the other hand, crystals of CsI(T_X) and KI(T_X) exhibited a different behavior. For these crystals the stored temporal integral increased with increase in plastic deformation. This fact is attributed to a destruction of the capture centers associated with thermal microlattice defects. Orig. art. has: 3 graphs.

SUB CODE: OP, SS /

SUBM DATE: 05Jan65/

ORIG REF: .002

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